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Table of the produce of the above land, in opium, seed, extract, and turnips.

	£	s.	d.
Opium 196lbs., at 1 <i>l.</i> 10 <i>s.</i> 6 <i>d.</i> per lb. . .	298	18	0
Seed 25 cwt. 1qr. 22lb., at 12 <i>s.</i> per cwt. . .	15	5	8
Ditto unsold, about 5 cwt., worth . . .	3	0	0
Extract 381 lb., at 1 <i>s.</i> 6 <i>d.</i> . . .	28	11	6
Turnips 10 acres, at 2 <i>l.</i> 10 <i>s.</i> per acre . .	25	0	0
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No. IV.

NATURALIZATION OF NEW ZEALAND FLAX.

The Thanks of the Society were presented to Mr. WM. SALISBURY of Brompton, for the following communication relative to naturalizing in the British Islands the PHORMIUM TENAX, or NEW ZEALAND FLAX.

SIR, Brompton, Middlesex, April 6, 1824.

DURING my late researches into the rural economy of the southern parts of Ireland, I discovered that the *phormium tenax*, or New Zealand flax plant, was growing there in the fullest luxuriance; and that it appeared to have become, in a great degree, naturalized to the climate and soil of that country.

As the qualities of New Zealand flax, as applied to naval purposes, &c. have of late been so much the subject of inquiry and conversation, particularly since the return of

Mr. Commissioner Bigge from New South Wales, I shall refrain troubling you with any detail on that head further than to notice, that having a desire to gratify some Irish gentlemen, I have had some of the flax scutched, (specimens of which I have by me), which, in point of produce, proved most fully the account I gave of the experiment I made at the request of Mr. Bigge, on which that gentleman's report, as printed by order of the House of Commons the 13th of March last, is founded. On this head I shall therefore beg leave to refer you to the enclosed copy of that account, as from all I have been enabled to learn, the same advantages that the propagation and culture of the New Zealand flax offer to the settlers in the colony of Sydney may be certainly reaped by the proprietors of land in the province of Munster at least.

As my object in going to that part of Ireland was to discover what additional means might be applied so as to extend the domestic employment of the poor; and with the hope that the cultivation of the *phormium* might become in a great degree subservient thereto, I was led to follow up my first discovery by inquiries into the habit of growth of that plant, and from the most respectable authority I am empowered to state,—

1st, That it has been cultivated as an ornamental plant, in the open ground, in “ the counties of Waterford, Cork, “ Limerick, Louth, Dublin, and Wicklow; that it is perfectly hardy, inasmuch as it has grown for the last thirty “ years on one estate successively, during which period it “ was noticed to have been once or twice only triflingly “ affected by frost, and that only in the tops of the leaves.

2d, “ That it is capable of being propagated by offsets “ from the roots, in a ratio sufficient to prove that it may

“ be brought into cultivation on a large scale, if efficient measures are taken for that purpose.”

The foregoing accounts, so very favourable to the probability of the *phormium* becoming in time an object of general cultivation with the proprietors of land in the south of Ireland, were first the result of my own deliberate observation, and have been since confirmed by the testimony of letters from the Right Honourable Lord Oriel, Mr. John Underwood, the curator of the botanic garden at Glasnevin, who has there resided twenty-eight years, and others. And since my return I am also informed that the plant grows equally well at the seat of Lord Cawdor in Pembrokehire, and also at several places near to Exeter ; it may therefore become also a valuable acquisition to many parts of the south-west of England.

Although the results of my former experiments were calculated principally from the dried material, as imported from New Zealand by Mr. Bigge, I nevertheless did procure some green leaves from the green-house, and on the produce of which I drew my conclusions as to the acreable produce. I have, however, had in Ireland a larger quantity at command, and, my experiments being more perfect, and on a larger scale, I am enabled thereby to state the following facts in addition.

From the growth of the plants, in the general *arrangements of hardy plants*, at Glasnevin, it appears that plants of three years old will, on an average, yield thirty-six leaves, besides a very considerable increase of offsets, which leaves being cut down, at the time of clearing the quarters in the autumn, are found to spring up again the following summer.

Six leaves have produced me one ounce of fibres, when

scutched perfectly clean and dry : at which rate an acre of land planted with this crop, at three feet distant plant from plant, will yield rather more than sixteen hundred weight per acre, which is a very great produce compared with that of either flax or hemp.

New Zealand flax is scutched with little labour or trouble, and may be performed by persons in common. The leaves should be cut when full grown, and macerated for a few days in stagnant water, and then passed under a roller machine properly weighted ; by this process the fibres become separated, and if washed in a running stream they will instantly become white, as is the specimen I herewith send that has been thus treated. When the fibres are thus scutched clean and dry any kind of friction will cause them to divide into any degree of fineness in the harle, so far even as to cottonize, whereby it is fitted for all the purposes to which hemp or flax is adapted.

On the supposition that this may be considered by the Society as an object of some importance to this country, and worthy of its encouragement, I have taken the liberty of again intruding on their time ; and if any further information that I can afford should be deemed necessary, I shall be most ready to afford it to the best of my ability.

I am, Sir,

A. Aikin, Esq.

Secretary, &c. &c.

&c. &c. &c.

W. SALISBURY.

EXTRACT of a letter from the Right Honourable Lord Oriel, dated February 17 last:—" I can aver that the "*phormium* is sufficiently hardy for our climate, it having

“ thriven with me for thirty years and upwards. It is also
“ about in many other places, as Cork, Waterford, Lime-
“ rick, &c. where the leaves grow five, six, and even eight
“ feet high.”

I should also make an extract from Mr. Underwood's account, but I have written to that gentleman for some other particulars, which shall be given when I obtain his answer.

THE following is an extract from Mr. Underwood's letter, alluded to in Mr. Salisbury's postscript.

“ The *phormium tenax* I brought to Ireland in the year
“ 1798: it was planted in the classes, and the roots never
“ injured, since 1800. In the year 1819, I put a plant in
“ the herbaceous quarter; and in the year 1823, from that
“ plant I took twenty-two plants, and left a good plant
“ behind. It increases much in the same manner as the
“ *sisyrinchium striatum*; but I do not think that the plant
“ should be parted till four years old. And in order to
“ have produce and profit, I should separate but one half
“ of the plant at a time, and the month of May I consider
“ the proper time to do it.”